

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

PROFILE PRODUCTS LLC,

Plaintiff,

v.

ENCAP, LLC,

Defendant.

OPINION and ORDER

09-cv-92-slc

Plaintiff Profile Products LLC owns United States Patent No. 6,349,499 (the ‘499 patent), which discloses a seed-containing mulch product and a process for preparing such a mulch product. Plaintiff filed this patent infringement lawsuit against defendant Encap, LLC, alleging that defendant’s seed mulch products infringe the ‘499 patent. Now before the court are the parties’ cross motions requesting construction of disputed claims terms in the ‘499 patent. After reviewing the parties’ briefs, I conclude that:

- (1) “**compacting**” (claims 1 and 11) means “extrusion under pressure, pressure rolling, prilling or other techniques which compact the agglomerated material into a form which has some degree of structural integrity, and which, following drying, can maintain its shape or be comminuted appropriately”;
- (2) “**mulch flakes**” (claim 1) means “irregular platelets with a thickness which is less than the dimensions across the platelet”;
- (3) “**natural or synthetic binder**” (claims 11 and 13) means “a substance that holds materials together either by itself or after the materials are processed”;
- (4) “**admixture**” (claim 11) means “having a seed encapsulated within or bound to mulch material”; and
- (5) “**seed-containing mulch product**” (claims 1 and 22) does not include the limitation proposed by defendant.

OPINION

A. Independent claims of the '499 patent

The '499 patent contains two independent claims, which are as follows:

I. A seed-containing mulch product, comprising a seed component having an average density of X, and mulch flakes having a density of $X \pm 0.5X$, said mulch flakes prepared by agglomerating one or more digested or undigested natural lignocellulosic raw materials and/or sewage sludge raw material and compacting into a compacted product which is comminuted to said mulch flakes.

II. A process for the preparation of a mulch product suitable for admixture with seed having a density of X, said mulch product having a density of $X \pm 0.5X$, said process comprising

- a) selecting a raw material selected from the group consisting of natural lignocellulosic materials, paper, and sewage sludge;
- b) agglomerating said raw material by incorporating a natural or synthetic binder;
- c) optionally adding a density lowering amount of paper or a natural lignocellulosic product; and
- d) compacting to form a mulch product.

B. "Compacting" (claims I and II)

Plaintiff's proposed construction:

Extrusion under pressure, pressure rolling, prilling or other techniques which compact the agglomerated material into a form which has some degree of structural integrity, and which, following drying, can maintain its shape or be comminuted appropriately.

Defendant's proposed construction:

Extrusion under pressure, pressure rolling, prilling or other techniques which compact the agglomerated material into a form which has some degree of structural integrity, and which, following drying, can maintain its shape or be comminuted appropriately.

It is necessary, regardless of the means of compacting, that the uncompacted precursor contain enough binder, surfactant, water absorber, and like compounds, to produce a product which can

withstand the rigors of further comminution (when practiced), storing, without breakdown into fine particles. The flakes, prills, etc., which are produced must also be a limited period of time as is well known.

The parties agree that the term “compacting” should be construed to include the requirements described in a definition of the term located in the patent specification, ‘499 pat., col. 6, lns. 42-47, which is why each parties’ construction includes an identical paragraph. However, defendant contends that elsewhere the specification sets additional requirements on “compacting,” ‘499 pat., col. 4, lns. 15-21, which explains the second paragraph defendant proposes.

I will not adopt defendant’s proposed construction because the additional limitation does not add anything to what is already required. The two independent claims, claims 1 and 11, require the mulch product to undergo agglomeration and compaction. The parties agree that agglomeration, which occurs before or simultaneously with compaction, involves a “treatment . . . effective to allow the compacted and dried material to have sufficient integrity to withstand subsequent comminution, storage and shipment without generating excessive fines.” Def.’s Br., dkt. 22, at 4. (The term “excessive fines,” as it is used, appears to mean “too many fine particles.”) Thus, by agglomeration, the product will come to “withstand the rigors” described in defendant’s proposed construction. Although the limitation defendant requests emphasizes that the product must “contain enough binder, surfactant, water absorber, and like compounds” to withstand the rigors, it does nothing to specify how much of these compounds is “enough” or explain the scope of acceptable “like compounds” such that it could be said to impose a limitation on the type of materials that may be present in the mulch product before compaction.

The language defendant identifies is more of a throw-away statement intended to summarize what is required of “agglomeration” than an additional limitation on “compacting.” Defendant’s proposed construction will be rejected and plaintiffs’ proposed construction will be adopted.

Court’s construction:

Extrusion under pressure, pressure rolling, prilling or other techniques which compact the agglomerated material into a form which has some degree of structural integrity, and which, following drying, can maintain its shape or be comminuted appropriately.

C. “Mulch flakes” (claim 1)

Plaintiff’s proposed construction:

Defined by the claim.

Defendant’s proposed construction:

Irregular platelets with a thickness which is less than the dimensions across the platelet.

Claim 1 discloses a mulch product comprising a seed component and “mulch flakes.” The parties disagree whether claim 1’s reference to “mulch flakes” requires that the mulch product be in “flake form,” which the specification describes as “irregular platelets with a thickness which is less than the dimensions across the platelet.” ‘499 pat., col. 2, lns. 6-8. The plain language of the claim suggests that claim 1 requires flake form; after all, “flake” means flake. Plaintiff has several arguments in opposition to adopting defendant’s construction, none of which is persuasive.

First, plaintiff contends that the term “mulch flakes” is a product-by-process claim, which means that it is “defined at least in part in terms of the method or process by which it is made.” *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1315 (Fed. Cir. 2006) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 158 (1989)). According to plaintiff, because claim 1 describes how mulch flakes are prepared (by agglomerating and compacting a raw material and then comminuting it), there is no need to include the shape requirement imposed by calling the mulch product a “flake.” I disagree. The purpose of product-by-process claims is to allow inventors to define a claim by its process when it “resists definition by other than the process by which it is made.” *SmithKline Beecham*, 439 F.3d at 1315 (citation omitted). Thus, to the extent an inventor can and does describe the claim by means other than a process, such as by describing the shape of a processed product, the plain meaning of that description should not be disregarded. Plaintiff cites no case to the contrary.

Next, plaintiff notes that the specification describes the flake form as a “preference,” not a requirement, ‘499 pat., col. 2, ln. 5, identifies other shapes that may be useful for helping the mulch performing its intended functions, *id.*, col. 2, lns. 8-11 and appears to use “mulch” and “mulch flakes” interchangeably in the specification, *id.*, col. 1, ln. 59 (“[t]he mulch flakes of the present invention”) and ln. 66 (“[t]he mulch may have any shape”). If the claims themselves did not distinguish “mulch” and “mulch flakes,” plaintiff might have a stronger argument for treating the two interchangeably or for treating “mulch flakes” as a mere preference. However, where claim 1 requires the mulch product to contain “mulch flakes,” claim 11 does not, leaving that claim open to the other types of mulch shapes identified in the specification. Later, claims 17-21 build on claim 11 by disclosing a “flaked mulch product.” The language within the claims

themselves shows that the patentee was well aware of the difference between “mulch” and “mulch flakes” and intended to limit claim 1 to “mulch flakes.” Therefore, I will reject plaintiff’s construction and adopt defendant’s construction of “mulch flakes.”

Court’s construction:

Irregular platelets with a thickness which is less than the dimensions across the platelet.

D. “Natural or synthetic binder” (claims 11 and 13)

Plaintiff’s proposed construction:

A substance that has the ability to bind materials together either itself or after the materials are processed.

Defendant’s proposed construction:

A binder that is a natural or synthetic substance that itself exhibits adhesive/tacky/sticky properties for the purpose of adhering/holding materials together.

The parties disagree about what the “binder” disclosed in claims 11 and 13 must do. According to defendant, it must “itself” be adhesive; according to plaintiff, the binder need only have “the ability to bind materials together either by itself or after the materials are processed.” At first glance, it is not clear what the parties are fighting over; both constructions would require the binder to do the job it appears designed to do: hold together the mulch. Their disagreement, however, is about whether the binder must be *independently* capable of doing its job.

Defendant contends that “binder” should be defined to be “itself” adhesive by pointing out that: (1) the dictionary defines a binder as “something . . . that creates uniform consistency,

solidification or cohesion,” The American Heritage College Dictionary 142 (4th Ed. 2004); (2) the specification refers to “a natural ‘adhesive’ binder” that helps maintain the integrity of the mixture, ‘499 pat., col. 2, lns. 62-63; (3) the specification’s only examples of binders are of materials that have adhesive properties; and (4) according to defendant, the purpose of the invention is “to create a tenacious bond,” *id.*, col. 6, lns. 14-18 (“upon comminution, some seed will remain embedded within mulch, a fair percentage will be exposed but will be still attached to mulch particles, while some will be entirely set free. Such mulch products are not believed heretofore available.”).

I am not persuaded that a “binder” must be independently adhesive as defendants argue. The dictionary definition suggests only that a binder must “create” cohesion, not that it be independently adhesive. A product could create cohesion by interacting with the materials to be joined. The specification does little to support the limitation that defendant requests. The fact that the specification uses only adhesive binders as examples of binders does not mean the patentee intended to exclude non-adhesive binders, particularly because there is no discussion of the independently adhesive nature of the examples listed. Moreover, the specification’s reference to “adhesive” binders does not imply that all binders must be adhesive; indeed, it suggests that binders could just as well be non-adhesive (otherwise it would be redundant to use the word “adhesive” to modify “binders”). Finally, to the extent it can be said that the purpose of the invention is to “create a tenacious bond,” the *independent* adhesiveness of the binder is irrelevant to that purpose; what matters is that the binder be capable of creating such a bond when put in the right setting. Therefore, defendant’s proposed construction must be rejected.

Plaintiff's proposed construction allows for a binder doing its work "after the materials are processed." Defendant contends that the binder must do more than "have the ability" to bind, it must actually bind. This appears to be a valid point, and I am eliminating this three-word phrase from the court's construction, while keeping that portion of plaintiff's proposed construction that explains *when* a binder should bind: "either by itself" (which means at any time), or "after the materials are processed." If a binder does not actually bind at those times, it fails the test under this construction. The claim language does not appear to require more. I am accepting plaintiff's proposed construction as modified, with one additional stylistic—*i.e.*, immaterial—change: rather than define the term "binder" by using the related term "bind," I will replace the word "bind" with the word "hold," which conveys the same idea.

Court's construction:

A substance that holds materials together either by itself or after the materials are processed.

E. "Admixture" (claim 11) and "seed-containing mulch product" (claim 1)

The parties' disagreements regarding the construction of "seed-containing mulch product" and "admixture" are similar. For both terms, defendant contends that the terms require that the seed be "bound within or encapsulated within" mulch flakes and plaintiff argues that no such limitation should be imposed. Defendant is correct regarding one of the terms, but not the other.

1. “Admixture”

Plaintiff’s proposed construction:

Act of mixing together.

Defendant’s proposed construction:

Having a seed bound or encapsulated within mulch flakes.

The specification explains that “the process of the present invention allows seed to be admixed with the mulch material, and thus to be encapsulated and/or bound thereto.” ‘499 pat., col. 4, lns. 28-31. Language found in the specification may limit the scope of a claim term when it describes a specialized meaning for the claim term, *e.g.*, *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001), or explains features of “the present invention,” *Verizon Services Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007). Although plaintiff points out that the description of “admixture” that defendant identifies is not located with other definitions found in the patent, the location of limiting language is irrelevant; it is its context that matters. Here, the specification describes “the process of the present invention” and explains that to be “admixed with the mulch material” is “to be encapsulated and/or bound thereto.”

Plaintiff contends that to read the language as a limitation on “admixture” is inappropriate because the language states that the “process of the present invention *allows* seed to be admixed.” From this, plaintiff argues that admixture does not require encapsulation or binding. That argument misses the mark. If anything, the statement could be taken to mean that the process of the present invention does not require *admixture*, not that admixture does not

require encapsulation or binding. The key phrase is “and *thus* to be encapsulated and/or bound thereto.” By a seed’s admixture, the specification states, it is *therefore* encapsulated or bound. Had the patentee wished, he could have stated that the “process . . . allows the seed to be encapsulated and/or bound to the mulch material during admixture,” which is how plaintiff asks the court to read the language. That is not what the specification says, though.

Plaintiff’s other argument is that encapsulation and binding are a “secondary” part of the invention. ‘499 pat., col. 1, lns. 54-56 (“the invention *also* provides for unique mulch products, including mulch products having seed attached or incorporated within mulch flakes”). However, the description of admixture as “thus” encapsulating or binding a seed leaves little room to argue that admixture could be anything other than encapsulation or binding. As with the language of the limiting phrase, plaintiff’s additional references show not that encapsulation or binding is not required for admixture, but rather that not all the claims require admixture. That much is correct. *See, e.g.*, ‘499 pat., cls. 1-10 (no mention of “admixture”).

Because the patentee’s only description of admixture involves limiting the term to “encapsulating” or “binding” the seed with the mulch material, the term should include this limitation. I will therefore reject plaintiff’s proposed construction and adopt defendant’s, with minor changes. Defendant proposes that the encapsulation or binding be “within mulch flakes.” Nothing about the identified limiting language requires that (1) the mulch material be “mulch flakes” or (2) binding be “within” mulch material (instead of “to” it). The limiting language identifies only “mulch material,” not “mulch flakes” and explains that the seed will be “encapsulated and/or bound *thereto*,” not “within.” Thus, the term “admixture” will be construed to mean “having a seed encapsulated within or bound to mulch material.”

Court's construction:

Having a seed encapsulated within or bound to mulch material.

2. "Seed-containing mulch product" (claims 1 and 22)

Plaintiff's proposed construction:

Defined by the claim.

Defendant's proposed construction:

Mulch product having seed bound within or encapsulated within mulch flakes.

The term "seed-containing mulch product" appears first in claim 1. Defendant contends that the term requires that the mulch product be bound within or encapsulated within mulch flakes. Unlike the term "admixture," there is no limiting language in the specification describing the term "seed-containing mulch product." Defendant supports its proposed construction by pointing out that the term "contain" means to "have within; hold" or to "have as component parts; include or comprise." The American Heritage College Dictionary 308 (4th Ed. 2004). That is all fine and good, but it does not explain why the *mulch flake* must contain the seed within it. The claim term describes the seed-containing mulch *product* which it goes on to explain comprises both seed and mulch flakes prepared by a given process. Nothing in the claim language requires the *flakes* to contain the seed, only the "product."

Defendant points to the limiting language describing admixture; however, the meaning of admixture is irrelevant to claim 1, which does not require admixture. Next, defendant contends that encapsulation or binding is the purpose of the invention, which should be read

into what is meant by “seed-containing mulch product.” To support this claim, defendants point out that the summary of the invention states that “the invention also provides for unique mulch products, including mulch products having seed attached or incorporated within mulch flakes,” ‘499 pat., col. 1, lns. 54-56, and the specification explains that prior art mulch products did not allow for the following scenario: “upon comminution, some seed will remain embedded within mulch particles, a fair percentage will be exposed but will be still attached to mulch particles, while some will be entirely set free.” ‘499 pat., col. 6, lns. 14-18.

I agree with plaintiff’s take on these statements: seed-binding is one of the benefits of the present invention, but not the only one. More to the point, seed-binding is not something required of every claim. The requirements of claim 11 and its dependent claims include a requirement that the seed be bound or encapsulated (by admixture), but claim 1 does not go so far. The invention was not solely directed at binding seed. As the summary explains, “[t]he present invention [also] provides for a . . . mulch product which has a density adjusted to the density of the seed with which the mulch is to be used, and which is prepared from a variety of lignocellulosic starting materials.” *Id.*, col. 1, lns. 49-54. This was thought superior to prior art use of similar densities in mulch because the prior art relied on “wood products such as sawdust, and waste paper, [which] are not always available.” *Id.*, col. 1, lns. 45-46. In short, nothing in the claim language or specification requires “seed-containing mulch product” to have the seed encapsulated or bound within the mulch flake. Therefore, I will reject defendant’s proposed construction. (Plaintiff did not propose a construction for this term.)

Court’s construction:

The construction proposed by defendant is rejected.

ORDER

IT IS ORDERED that the disputed claim terms found in U.S. Patent No. 6,349,499 are construed as follows:

- (1) “**compacting**” (claims 1 and 11) means “extrusion under pressure, pressure rolling, prilling or other techniques which compact the agglomerated material into a form which has some degree of structural integrity, and which, following drying, can maintain its shape or be comminuted appropriately”;
- (2) “**mulch flakes**” (claim 1) means “irregular platelets with a thickness which is less than the dimensions across the platelet”;
- (3) “**natural or synthetic binder**” (claims 11 and 13) means “a substance that holds materials together either by itself or after the materials are processed”;
- (4) “**admixture**” (claim 11) means “having a seed encapsulated within or bound to mulch material”; and
- (5) “**seed-containing mulch product**” (claims 1 and 22) does not include the limitation proposed by defendant.

Entered this 15th day of July, 2009.

BY THE COURT:

/s/

STEPHEN L. CROCKER
Magistrate Judge